



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

[Handwritten signature]

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,908	06/24/2003	Peter S. Vosbikian	QUK-2	2166
26689	7590	08/30/2004		
WILDMAN, HARROLD, ALLEN & DIXON 225 WEST WACKER DRIVE CHICAGO, IL 60606			EXAMINER PRUNNER, KATHLEEN J	
			ART UNIT	PAPER NUMBER
			3751	

DATE MAILED: 08/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,908

Applicant(s)

VOSBIKIAN ET AL.

Examiner

Kathleen J. Prunner

Art Unit

3751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-92 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-92 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 062403.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because: (A) in Fig. 2, the lead line for “22” is misdirecting (note Fig. 1); and (B) in Fig. 3, the small piece directly in front of “28” is unidentified and confusing, if it is part of the support member 28, it should be bracketed to indicate that the two parts constituted a single figure. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) **not mentioned** in the description: **162** (note Fig. 5A). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to

Art Unit: 3751

obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Marked-up Drawings" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

4. The following informalities in the specification are noted: (A) on page 10, line 17, "22" (second occurrence) should read --28--; (B) on page 10, line 20, --the-- should be inserted before "mop"; (C) on page 10, line 24, --210 and 212-- should be inserted after "channels", and "210 and 212" should be changed to read --28--; (D) on page 11, line 20, "comprises" should be changed to read --comprise--; (E) on page 11, line 29, "FIG. 2" should read --FIG. 4--; (F) on page 12, line 15, --69-- should be inserted after "sleeve"; (G) on page 12, line 16, "69," should be deleted; (H) on page 12, line 25, "FIG. 8" should read --FIG. 9--; and (I) on page 13, line 7, "69" should read --68--. Appropriate correction is required.

5. The following informalities in the claims are noted: (A) in claim 9, on line 1, "first" should read --second--; and (B) in claim 22, on line 6, --and-- should be inserted after the semi-colon. Appropriate correction is required.

6. The use of the trademark VELCRO® has been noted in this application (note page 8). It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 15, 16, 40 and 41 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for “the first cleaning member 24 may be releasably secured to the hinged platen 34 through tiny hooks 37 extending from the second side 38 of the hinged platen 34” (note Fig. 2 and from line 30 on page 6 to line 2 on page 7), does not reasonably provide enablement for “a hinged platen . . . underlying the cleaning member”, as called for by claims 15 and 40. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

9. Claims 18 and 23 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for “the first cleaning member 24 is constructed of a sponge-like material” (lines 21-22 and 27-28 on page 6), does not reasonably provide enablement for the cleaning member to be “a sponge”, as called for by claims 18 and 23. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

10. Claim 24 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for “the second cleaning member 26 is in the form of a dry sheet” (note lines 22-23 on page 6), does not reasonably provide enablement for “the second cleaning member is a . . . pad”, as called for by the claim. The specification does not enable any person

Art Unit: 3751

skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with this claim.

11. Claims 67-80 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for “the handle 12 comprises a portion to hold a fluid” (note lines 2-3 on page 11), “the portion is in the form of a cavity 62 disposed within the handle 12” (note lines 7-8 on page 11), “To fill the cavity 62 with fluid, a user may pour the fluid through an opening 1, disposed on a surface of the handle 12. The opening may be disposed anywhere on the handle 12, including on its top surface 7” (note lines 15-17 on page 11), “the fluid is released through the one or more openings 64, 65, 66 disposed on the support member 28 or scrubber 100 or 200” (note lines 24-26 on page 11), “A . . . valve assembly for releasing the fluid is shown in FIGS. 7A and 7B.” (note lines 12-13 on page 12), “the valve assembly comprises . . . one or more apertures 86 and 88” (note lines 14-19 on page 12), “the valve assembly 67 may be connected to the one or more openings 64, 65, 66 through a flexible tube 94” (note lines 21-22 on page 12), “the valve assembly 67 is maintained in a closed position, as shown in FIG. 7A. When the valve assembly is in this condition, the first O-ring 84, working conjunction with the annular sleeve 69 creates a seal that prevents fluid from entering the one or more apertures 86 and 88 in the hollow valve body” (note lines 3-7 on page 13), “after activation of the second actuator 20, the lever arm 78 is pulled upward, exerting force on the bottom of the spring retainer 72, thereby compressing the spring 70 and moving the spring retainer 72 toward the upper end 14 of the handle 12. Movement of the spring retainer 72 in this direction exerts pressure on the annular shoulder 92, driving the hollow valve body 68 upward and exposing the one or more apertures 86 and 88 to the fluid” (note lines 9-14 on page 13) and “fluid enters the hollow valve body 68 down through the apertures 86 and 88 and flows into the first barbed fitting 74, through the flexible tube 94 and the second barbed fitting 96, and out the one or more openings 64, 65, 66 shown in FIG. 9” (note lines 14-17 on page 13), does not reasonably provide enablement for “the handle including an opening” and “a valve assembly within the handle for releasing the fluid from the opening in the portion of the handle, the valve assembly including a valve that, in a closed position, covers the

Art Unit: 3751

opening in the portion of the handle, wherein the valve is movable to an open position to uncover the opening”, as called for by claim 67. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claims 76-79 and 81-92 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

14. Claim 76 contains a term lacking proper antecedent basis. The claim recites the limitation “the one or more openings” in line 2. There is insufficient antecedent basis for this limitation in the claim.

15. Claim 81 contains a term lacking proper antecedent basis. The claim recites the limitation “the hollow handle” in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102 & 35 USC § 103

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3751

18. Claims 1, 3, 4, 6-9, 15, 18, 22, 23, 25, 27, 31-36 and 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Brooks. With respect to claim 1, Brooks discloses a mop having all the claimed features including a handle 22 including an upper end, a lower end 28 and a portion adapted to hold a fluid (note lines 41-43 in col. 3), a mop head 120 disposed near the lower end 28 of the handle 22 (note Fig. 1), the mop head 120 including a cleaning member (constituted by sponge element 144), at least one opening 82 in communication with a portion of the handle adapted to hold the fluid (note lines 62-66 in col. 2), a first actuator (constituted by ears 178, note lines 3-8 in col. 4) associated with the mop to cause the mop head to compress a portion of the cleaning member (note lines 54-56 in col. 4), and a second actuator (constituted by handle 198, note Fig. 8) adapted to cause the fluid to be released through the opening 82. With regard to claim 22, Brooks discloses a mop having all the claimed features including a handle 22 including an upper end and a lower end 28, a mop head 120 disposed near the lower end of the handle 22 (note Fig. 1), the mop head 120 being adapted for releasable securement of a first cleaning member 144 (note line 50 in col. 3), a second cleaning member 144a (note lines 60-62 in col. 3) adapted to be releasably secured to the mop head 120 in the absence of the first cleaning member (note lines 45-50 in col. 1), and an actuator (constituted by ears 178, note lines 3-8 in col. 4) associated with the mop to cause the mop head to compress a portion of the cleaning member being used (note lines 54-56 in col. 4). With respect to claims 3 and 38, Brooks also discloses an opening (constituted by the open upper end of the handle 22) disposed on a surface of the handle 22 adapted to accept the fluid. With regard to claims 4 and 39, Brooks further discloses a cap 36 adapted to cover the opening. With regard to claims 6 and 32, Brooks additionally discloses that the portion adapted to hold the fluid comprises a cavity (constituted by chamber 26) within the handle in communication with the lower end of the handle 22. With regard to claims 7 and 34, Brooks further discloses a tube (constituted by sleeve 74) connecting the portion adapted to hold the fluid with the opening 82 (note Fig. 3). With respect to claims 8 and 35, Brooks also discloses a valve (constituted by cap 92) disposed between the portion to hold the fluid and the opening 82 (note Fig. 3). With respect to claim 9, Brooks additionally

Art Unit: 3751

discloses that the second actuator is adapted to open and close the valve (note lines 38-40 in col. 1). With regard to claims 15 and 40, Brooks further discloses a hinged platen (constituted by squeeze plate 168) disposed on the mop head 120a and which underlies the cleaning member when squeezed (note Figs. 5 and 7, and lines 6-8 in col. 4). With regard to claims 18 and 23, Brooks also discloses that the cleaning member is a sponge (note line 50 in col. 3). With regard to claim 25, Brooks additionally discloses that the cleaning members are releasably secured to the mop through at least one securement structure (note lines 26-40 in col. 3) on the mop head 120. With respect to claim 27, Brooks also discloses that the mop is capable of being used with only one cleaning member at a time (note lines 45-50 in col. 1). With respect to claim 31, Brooks further discloses that the handle is adapted to hold a fluid (note lines 41-43 in col. 3). With respect to claim 33, Brooks additionally discloses at least one opening 82 in communication with a portion of the handle adapted to hold the fluid (note lines 62-66 in col. 2) and that the opening 82 is capable of releasing the fluid (note lines 62-72 in col. 2). With regard to claim 36, Brooks also discloses an actuator (constituted by handle 198, note Fig. 8) disposed on the handle and adapted to cause the fluid to be released through the opening 82.

19. Claims 2 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Jones ('620). Although Brooks fails to disclose that the handle includes a transparent window for viewing the fluid, attention is directed to Jones who discloses another mop having a portion of the handle 1 adapted to hold a fluid wherein the handle 1 has a window or a short length of transparent material 4 in order to provide that the fluid in the handle can be observed or viewed (note lines 18-23 in col. 2). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to provide the handle of Brooks with a transparent window portion in view of the teachings of Jones in order to provide that the fluid in the handle can be observed or viewed.

20. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Waltz. Although Brooks fails to disclose that the cap 36 has at least one depression for gripping the cap, attention is directed to Waltz who discloses another mop having a portion of the handle

Art Unit: 3751

11 adapted to hold a fluid and a cap (constituted by plug 41, note Fig. 1) adapted to cover the opening on the end of the handle 11 wherein the cap has depressions therein (note Fig. 1). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to provide the cap of Brooks with depressions in view of the teachings of Waltz in order to provide a better surface area for gripping of the cap.

21. Claims 10, 11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Cole. Although Brooks fails to disclose that a disposable cleaning member can be used over the cleaning member, attention is directed to Cole who discloses another mop having a sponge mop or pad 10 to be used with water in the usual manner of a wet mop (note lines 38-40 in col. 2) and a disposable layer or sheet 20 (note lines 16-21 in col. 3) adapted to be releasably secured to the mop head over the sponge pad 10 (note lines 66-70 in col. 2) to provide for dry dusting (note lines 50-54 in col. 2). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to provide the sponge cleaning member 144 of Brooks with a disposable layer or sheet adapted to be releasably secured to the mop head over the sponge cleaning member in view of the teachings of Cole in order to provide a more versatile mop that can be used for both wet mopping and dry dusting. With respect to claim 11, Cole further teaches the obviousness of releasably securing the disposable cleaning member 20 directly to the mop through at least one securement structure in the mop head (note Fig. 3 and lines 11-15 in col. 3). With regard to claim 13, Cole also teaches the obviousness of using the mop without the disposable cleaning member 20 in order to use the mop with water (note lines 38-40 in col. 2). With respect to claim 14, Cole additionally teaches the obviousness of using a reusable cleaning member 20 (note lines 21-26 in col. 3).

22. Claims 10-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Krajicek. Although Brooks fails to disclose that a disposable cleaning member can be used over the cleaning member, attention is directed to Krajicek who discloses another mop that is adaptable for damp mopping as well as scrubbing of floors (note lines 47-49 in col. 1) having a sponge mop cleaning member 18 (note lines 58-64 in col. 2) provided with a

Art Unit: 3751

disposable scrubbing pad 19 (note lines 32-34 in col. 3) adapted to be releasably secured to the mop head over the sponge pad 18 (note lines 1-4 in col. 3) to provide for scrubbing floors (note lines 47-49 in col. 1). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to provide the sponge cleaning member 144 of Brooks with a disposable layer or scrubbing pad adapted to be releasably secured to the mop head over the sponge cleaning member in view of the teachings of Krajicek in order to provide a more versatile mop that can be used for both wet mopping and scrubbing of floors. With respect to claim 11, Krajicek further teaches the obviousness of releasably securing the disposable cleaning member 19 directly to the mop through at least one securement structure in the mop head (note Fig. 5 and lines 19-32 in col. 3). With respect to claim 12, Krajicek additionally teaches the obviousness of using hook and loop arrangements (note lines 23-28 in col. 3) as a releasable attachment for securing the disposable cleaning member to the mop head. With respect to claim 14, Krajicek additionally teaches the obviousness of using a reusable cleaning member 26 (note lines 57-60 in col. 3).

23. Claims 16, 26, 28, 29 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Flynn. With regard to claims 16 and 41, Brooks further discloses that the cleaning member is fixedly secured to the a base portion 132a of the mop head 120a. Although Brooks fails to disclose how the cleaning member is fixedly secured, attention is directed to Flynn who discloses another mop which utilizes a squeeze plate to wring out the cleaning member wherein the cleaning member is releasably secured to the mop head or hinged platen by the use of screws (constituted by the threaded posts and thumb nuts 24, note lines 58-63 in col. 3). To employ a screw attachment as, for example, taught by Flynn on the Brooks device would have been obvious to one of ordinary skill in the art wherein so doing would amount to mere substitution of one securement or attachment device for another in the same art that would work equally well on the Brooks device. With regard to claim 26, Flynn further teaches the obviousness of using threaded posts (note line 61 in col. 3) which inherently constitute pins. With respect to claim 28, although Brooks fails to disclose that the cleaning member is reusable,

Art Unit: 3751

attention is directed to Flynn who discloses another mop which utilizes a reusable cover or cap system 10 (note lines 1-2 in col. 5) which covers the sponge cleaning element in order to prolong the life of the sponge cleaning element (note lines 44-48 in col. 2). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to provide the sponge cleaning member of Brooks with a reusable cover in view of the teachings of Flynn in order to prolong the life of the sponge cleaning element. With respect to claim 29, although Brooks fails to disclose that the cleaning member is reversible, attention is directed to Flynn who discloses another mop which utilizes a reversible cover or cap system 10 (note lines 3-4 in col. 5) which covers the sponge cleaning element in order to prolong the life of the sponge cleaning element (note lines 44-48 in col. 2). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to provide the sponge cleaning member of Brooks with a reversible cover in view of the teachings of Flynn in order to prolong the life of the sponge cleaning element.

24. Claims 17 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Wilson. Brooks discloses that the mop has a wringer (note from line 73 in col. 3 to line 8 in col. 4). Although Brooks fails to disclose any specific details of the wringer, attention is directed to Wilson who discloses another wringer mop in which the wringer 32 includes rollers 35, 37 in order for the arms 34, 36 to easily traverse the exposed upper surface of the paddles 26, 28 forming part of the mop head 20 to effect folding of the sponge cleaning member (note lines 9-30 in col. 4). It would have been obvious to one of ordinary skill in the wringing mop art, at the time the invention was made, to form the wringer of Brooks with rollers in view of the teachings of Wilson in order to enable the members which effect folding of the cleaning member to easily traverse the cleaning member.

25. Claims 19-21 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Sawyer. Brooks further discloses that the mop is used for normal mopping functions (note lines 21-24 in col. 2). With respect to claims 19 and 43, Although Brooks fails to disclose that the cleaning member includes a scrubbing layer, attention is directed to Sawyer who

Art Unit: 3751

discloses another mop which utilizes a cleaning member having a scrubbing layer 31 formed as part thereof in order to enable the mop to be used to effect a scrubbing mode as well as a cleaning mode (note lines 4-13 in col. 3). With respect to claims 20 and 44, Sawyer further teaches the obviousness of forming the scrubbing layer 31 so as to comprise abrasive material (note lines 12-16 in col. 3). With respect to claims 21 and 45, Sawyer additionally teaches the obviousness of forming the scrubbing layer 31 so as to comprise brush like material (note lines 12-14 in col. 3).

26. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of George. Although Brooks fails to disclose that the cleaning members are disposable, attention is directed to George who discloses another mop in which the cleaning member 21 has a plural-layer, disposable cover 22 wrapped around it wherein dirt is retained on the disposable element and is not introduced into the cleaning fluid (note lines 49-51 in col. 1), the cover may be removed readily to expose a clean surface when desirable (note lines 64-67 in col. 1), and cleaning may take place for a longer period of time (note lines 53-57 in col. 1). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to provide the cleaning member of Brooks with a plural-layer, disposable cover wrapped around it in view of the teachings of George in order to expose a clean surface whenever it is desirable to do so to and to enable the mop to be used for a longer period of time.

27. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Sawyer. Although Brooks fails to disclose that a pre-moistened cleaning member can be secured to the mop head 12, attention is directed to Sawyer who discloses another mop or floor cleaning device (note Fig. 1) which utilizes different cleaning members including a pre-moistened cleaning member 90 (note lines 55-56 in col. 6) that is secured to the mop head to form a mop or floor cleaning device that is capable of operating in one of a first mode in which the cleaning member 32 is constructed of a sponge-like material (note lines 17-19 in col. 3) and a second mode in which a pre-moistened cleaning member 90 (note lines 55-56 in col. 6) is secured to the mop head in order to form a single piece of equipment to handle cleaning and removal of

Art Unit: 3751

contamination from floors (note lines 3-6 and 19-26 in col. 2). It would have been obvious to one of ordinary skill in the mop or floor cleaning device art, at the time the invention was made, to make the mop of Brooks capable of using a pre-moistened cleaning member in view of the teachings of Sawyer in order to use a single piece of equipment to handle both cleaning and removal of contamination from floors.

28. Claims 46, 56-62 and 64-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn in view of Sawyer. Flynn discloses a mop capable of operating in a plurality of different modes having the claimed features including a handle 16 including an upper end and a lower end (note Fig. 1), a mop head 12 disposed near the lower end of the handle 16, an actuator 26 adapted to cause compression of a portion of a cleaning member 18 in which the cleaning member 18 is releasably secured to the mop head (note lines 58-63 in col. 3), and wherein the mop is capable of operating in one of a first mode in which the cleaning member 18 is constructed of a sponge-like material (note lines 54-55 in col. 3) and another mode in which a dry cleaning or polishing cleaning member 10 is secured to the mop head 12 (note Fig. 1 and lines 3-6 in col. 3 and lines 59-60 in col. 4). Although Flynn fails to disclose a second mode in which a pre-moistened cleaning member is secured to the mop head 12, attention is directed to Sawyer who discloses another mop or floor cleaning device (note Fig. 1) in which the sponge cleaning member is combined with different layers of material to form a mop or floor cleaning device that is capable of operating in one of a first mode in which the cleaning member 32 is constructed of a sponge-like material (note lines 17-19 in col. 3), a second mode in which a pre-moistened cleaning member 90 (note lines 55-56 in col. 6) is secured to the mop head, and a third mode in which a dry cleaning member 91 (note lines 53-54 in col. 6) is secured to the mop head in order to form a single piece of equipment to handle scrubbing, cleaning and removal of contamination from floors (note lines 3-6 and 19-26 in col. 2). It would have been obvious to one of ordinary skill in the mop or floor cleaning device art, at the time the invention was made, to make the mop of Flynn capable of using a pre-moistened cleaning member in view of the teachings of Sawyer in order to use a single piece of equipment to handle scrubbing, cleaning

Art Unit: 3751

and removal of contamination from floors. With respect to claim 56, Flynn further discloses that the sponge cleaning member is replaceable or disposable (note lines 34-36 in col. 1). With respect to claim 57, Flynn also discloses that the cleaning members are releasably secured to the mop through at least one securement structure in the mop head (note lines 58-63 in col. 3 and lines 23-24 and 39-50 in col. 4). With regard to claim 58, the threaded posts of Flynn (note line 61 in col. 3) inherently constitute pins. With respect to claim 59, Flynn further discloses that the polishing layer is reusable (note lines 1-2 in col. 5). With respect to claim 60, Flynn additionally discloses that the polishing layer is reversible (note lines 3-4 in col. 5). With regard to claim 61, Flynn also discloses a hinged platen disposed on the mop head (note lines 66-68 in col. 3). With regard to claim 62, Flynn further discloses that the sponge cleaning member is releasably secured to the hinged platen by screws (constituted by the threaded posts and thumb nuts 24, note lines 58-63 in col. 3). With regard to claim 64, Sawyer also teaches the obviousness of using a scrubbing layer 31 (note lines 9-13 in col. 3). With respect to claim 65, Sawyer further teaches the obviousness of forming the scrubbing layer 31 so as to comprise abrasive material (note lines 12-16 in col. 3). With respect to claim 66, Sawyer additionally teaches the obviousness of forming the scrubbing layer 31 so as to comprise brush like material (note lines 12-14 in col. 3).

29. Claims 47-52, 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn in view of Sawyer, as applied to claims 46, 56-62 and 64-66 above, and further in view of Brooks. Flynn also discloses that the mop is used for normal mopping procedures which include the use of wetting the cleaning member with cleaning fluid in order to cleanse the floor by reciprocal movement of the mop contacting the floor surface (note lines 51-57 in col. 4). Although Flynn fails to disclose that the mop itself contains a device for wetting the cleaning member, attention is directed to Brooks who discloses another mop in which the fluid for wetting the cleaning member is stored within the handle for controlled dispensing of the fluid (note lines 23-26 and 34-37 in col. 1). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to form the mop of Flynn such that the wetting fluid is disposed within the handle in view of the teachings of Brooks in order to better control the dispensing of

Art Unit: 3751

the fluid and to form a more compact floor cleaning implement which reduces the equipment needed to effect a floor cleaning operation. With respect to claim 48, Brooks further teaches the obviousness of forming the portion adapted to hold the fluid to comprise a cavity (constituted by chamber 26) within the handle in communication with the lower end of the handle. With respect to claim 49, Brooks additionally teaches the obviousness of using at least one opening 82 in communication with a portion of the handle adapted to hold the fluid (note lines 62-66 in col. 2) and that the opening 82 is capable of releasing the fluid (note lines 62-72 in col. 2). With regard to claim 50, Brooks also teaches the obviousness of using a tube (constituted by sleeve 74) connecting the portion adapted to hold the fluid with the opening 82 (note Fig. 3). With regard to claim 51 Brooks further teaches the obviousness of using a valve (constituted by cap 92) disposed between the portion to hold the fluid and the opening 82 (note Fig. 3). With regard to claim 52, Brooks also teaches the obviousness of using an actuator (constituted by handle 198, note Fig. 8) disposed on the handle and adapted to cause the fluid to be released through the opening 82. With respect to claim 54, Brooks further teaches the obviousness of using an opening (constituted by the open upper end of the handle 22) disposed on a surface of the handle 22 adapted to accept the fluid. With respect to claim 55, Brooks additionally teaches the obviousness of using a cap 36 adapted to cover the opening.

30. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn in view of Sawyer and Brooks, as applied to claims 47-52, 54 and 55 above, and further in view of Jones ('620). Although Brooks fails to teach that the handle includes a transparent window for viewing the fluid, attention is directed to Jones who discloses another mop having a portion of the handle 1 adapted to hold a fluid wherein the handle 1 has a window or a short length of transparent material 4 in order to provide that the fluid in the handle can be observed or viewed (note lines 18-23 in col. 2). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to provide the handle of Flynn with a transparent window portion in view of the teachings of Jones in order to provide that the fluid in the handle can be observed or viewed.

31. Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn in view of Sawyer, as applied to claims 46, 56-62 and 64-66 above, and further in view of Wilson. Flynn discloses that the mop has a wringer (note from line 64 in col. 3 to line 2 in col. 4). Although Flynn fails to disclose any specific details of the wringer, attention is directed to Wilson who discloses another wringer mop in which the wringer 32 includes rollers 35, 37 in order for the arms 34, 36 to easily traverse the exposed upper surface of the paddles 26, 28 forming part of the mop head 20 to effect folding of the sponge cleaning member (note lines 9-30 in col. 4). It would have been obvious to one of ordinary skill in the wringing mop art, at the time the invention was made, to form the wringer of Flynn with rollers in view of the teachings of Wilson in order to enable the members which effect folding of the cleaning member to easily traverse the cleaning member.

32. Claims 67-71, 76, 77 and 79 are rejected under 35 U.S.C. 102(b) as being anticipated by Fodrocy et al. Fodrocy et al. disclose a mop (note lines 1-2 of ¶ 0002) having all the claimed features including a handle 10 including an upper end and lower end (note Fig. 1) and a portion adapted to hold a fluid (note ¶ 0006), the portion of the handle including an opening (note Fig. 2 and lines 3-5 of ¶ 0018), a mop head 80 disposed near the lower end of the handle 10, the mop head including a cleaning member (note Fig. 1), and a valve assembly 40 within the handle (note Fig. 4) for releasing the fluid from an opening or passageway 43 in a portion of the handle, the valve assembly 40 including a valve (constituted by lip 63) that, in a closed position, covers the opening 43 in the portion of the handle 10 (note the solid lines in Fig. 4), wherein the valve 63 is movable to an open position to uncover the opening 43 (note the dotted line position in Fig. 4). With respect to claim 68, Fodrocy et al. also disclose that the valve assembly 40 further comprises a first O-ring 65. With respect to claim 69, Fodrocy et al. further disclose that the handle 10 has a substantially uniform cross-section (note Figs. 1 and 2). With regard to claim 70, Fodrocy et al. additionally disclose that the valve assembly 40 comprises a hollow valve body 42 including an annular shoulder (at the passageway 43, note Fig. 4). With regard to claim 71, Fodrocy et al. further disclose that the valve body 42 comprises one aperture (forming

Art Unit: 3751

passageway 43). With respect to claim 72, Fodrocy et al. additionally disclose a sleeve (constituted by shaft 11, note Fig. 4) positioned over the valve body 2. With respect to claim 76, Fodrocy et al. also disclose an actuator (constituted by the push button assembly 30) for opening the valve assembly 40 and releasing fluid through the one opening (note ¶ 0030). With regard to claim 77, Fodrocy et al. additionally disclose that the actuator 30 is associated with the valve assembly 40 through a rod 50 (note Fig. 4). With respect to claim 79, Fodrocy et al. further disclose that the actuator 30 is a push button 32 (note ¶ 0019).

33. Claim 73 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fodrocy et al. in view of Zorzo. Fodrocy et al. further disclose a fitting or end connector 90 in communication with the valve assembly (note Fig. 4) and that other end connectors can be used to connect the mod head to the handle (note the last sentence of ¶ 0027). Although Fodrocy et al. fail to disclose that the fitting or end connector has a barbed configuration, attention is directed to Zorzo who discloses another mop having a connector 31 (note Figs. 21-23) that is provided with a barbed appendage 32 to enable attachment of the connector 31 to a tube. It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to substitute for the connector of Fodrocy et al., the barbed connector as, for example, taught by Zorzo wherein so doing would amount to mere substitution of one connector for another that would work equally well in the Fodrocy et al. device.

34. Claims 74, 75 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fodrocy et al. in view of Huang. With respect to claim 74, although Fodrocy et al. fail to disclose that a flexible tube is in communication with the opening for releasing fluid, attention is directed to Huang who discloses another mop having a handle activated valve member wherein a flexible tube 47 connects the outlet of the reservoir to the opening or nozzle 51, which is located on the mop head, for releasing the fluid. It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to connect the outlet of the reservoir of Fodrocy et al. to the dispensing opening or nozzle by use of a flexible tube in view of the teachings of Huang in order to position the nozzle on the mop head for more precise control of the area to be

Art Unit: 3751

sprayed. With respect to claims 75 and 78, although Fodrocy et al. fail to disclose that the valve assembly comprises a lever arm, attention is directed to Huang who discloses another mop having the movement of the valve operated via a lever arm or pawl 36 (note Fig. 5) so that the actuator in the form of a trigger or cam 12 can be mounted on the handle 13. It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to provide the valve of Fodrocy et al. with a lever arm in view of the teachings of Huang in order to permit activation of the valve through a trigger or cam actuator located conveniently on the handle.

35. Claims 67 and 75-78 are rejected under 35 U.S.C. 102(b) as being anticipated by Ziv et al. Ziv et al. disclose a mop (constituted by the scrubbing brush head mop, note Fig. 1) having all the claimed features including a handle including an upper end (constituted by tube D) and lower end (constituted by tubes E and F) and a portion (tubes E and F) adapted to hold a fluid (note Fig. 2), a portion of the handle including an opening (constituted by nozzle *f*), a mop head (constituted by part A of the brush, note Fig. 2) disposed near the lower end of the handle, the mop head including a cleaning member (constituted by bristles *c*), and a valve assembly within the handle (note Fig. 2) for releasing the fluid from an opening in a portion of the handle (note Fig. 2), the valve assembly including a valve *j* that, in a closed position, covers the opening in the portion of the handle 10 (note lines 53-60 on page 1), wherein the valve *j* is movable to an open position to uncover the opening (note lines 60-67 on page 1). With respect to claim 75, Ziv et al. also disclose that the valve assembly comprises a lever arm *p*. With regard to claim 76, Ziv et al. further disclose an actuator for opening the valve assembly and releasing the fluid through the opening (note lines 60-67 on page 1). With regard to claim 77, Ziv et al. additionally disclose that the actuator is associated with the valve assembly through a rod *h*. With respect to claim 78, Ziv et al. also disclose that the actuator is a trigger *p* (note Fig. 2).

36. Claim 80 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fodrocy et al. in view of Brooks. Fodrocy et al. further disclose that the mop has a cleaning member on the mop head 80 (note Fig. 1). Although Fodrocy et al. fails to disclose any details regarding the cleaning member, attention is directed to Brooks who discloses another mop having a portion of the

Art Unit: 3751

handle 24 adapted to hold a fluid in which an actuator (constituted by ears 178) is used for causing the mop head to compress or squeeze the cleaning member in order to permit fluid passage therethrough in clearing the mop of moisture or the like (note from line 73 in col. 3 to line 8 in col. 4). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to provide the mop of Fodrocy et al. with an actuator in view of the teachings of Brooks in order to compress or squeeze the cleaning member in order to permit fluid passage therethrough in clearing the mop of moisture or the like.

37. Claims 81-83, 90 and 92 are rejected under 35 U.S.C. 102(b) as being anticipated by Istrico. Istrico discloses a mop having all the claimed features including a handle 19 including an upper end (constituted by sections 27 and 25), a lower end and a portion (constituted by reservoir 18) adapted to hold a fluid, wherein the portion 18 adapted to hold a fluid does not include a removable container, an opening (constituted by the open end of portion 18, note lines 59-63 on page 1) disposed on the surface of the upper end of the handle for pouring fluid into the handle, a mop head 10 disposed near the lower end of the hollow handle 19 (note Fig. 1), the mop head 10 including a cleaning member 11, and one or more openings (constituted by perforations 14) in communication with the portion of the handle 19 adapted to hold the fluid, the one or more openings 14 being capable of releasing the fluid (note lines 85-89 on page 1). With respect to claim 82, Istrico also discloses that the portion 18 adapted to hold the fluid is a cavity within the handle 19. With regard to claim 83, Istrico further discloses a valve assembly 20 for releasing the fluid through the one or more openings 14. With regard to claim 90, Istrico additionally discloses an actuator 30 for opening the valve assembly 20 and releasing fluid through the one or more openings 14. With respect to claim 92, Istrico also discloses that the handle 19 comprises a substantially uniform cross section (note Fig. 1).

38. Claims 67, 70-72, 76, 81-87, 90 and 92 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones ('620). With regard to claim 67, Jones discloses a mop (note lines 52-53 in col. 1) having all the claimed features including a handle 1 including an upper end, a lower end and a portion adapted to hold a fluid (note Fig. 1 and lines 16-18 in col. 2), the portion adapted to

Art Unit: 3751

hold the fluid including an opening (constituted by the upper open end of portion 4, note lines 23-24 and 47-49 in col. 2), a mop head 2 disposed near the lower end of the hollow handle 1 (note Fig. 1), the mop head including a cleaning member 3, and a valve assembly (note lines 39-41 in col. 2) within the handle 1 (note Fig. 2) for releasing the fluid through an opening 7 in the handle 1 (note lines 47-53 in col. 2), the valve assembly including a valve that, in a closed position (note Fig. 4), covers the opening in the handle, wherein the valve is movable to an open position (note Fig. 5) to uncover the opening 7. With respect to claim 81, Jones discloses a mop (note lines 52-53 in col. 1) having all the claimed features including a handle 1 including an upper end, a lower end and a portion adapted to hold a fluid (note Fig. 1 and lines 16-18 in col. 2), wherein the portion adapted to hold the fluid does not include a removable container, an opening (constituted by the upper open end of portion 4, note lines 23-24 and 47-49 in col. 2) disposed on a surface of the upper end of the handle 1 for pouring fluid into the handle, a mop head 2 disposed near the lower end of the hollow handle 1 (note Fig. 1), the mop head including a cleaning member 3, and an opening (constituted by the passage or aperture 7) in communication with the portion of the handle 1 adapted to hold the fluid (note Fig. 2), the opening 7 being capable of releasing the fluid (note lines 47-53 in col. 2). With respect to claim 82, Jones also discloses that the portion adapted to hold the fluid is a cavity within the handle (note lines 16-18 in col. 2). With respect to claim 83, Jones further discloses a valve assembly (note lines 39-41 in col. 2) for releasing the fluid through the opening (note lines 47-53 in col. 2). With respect to claim 84, the packing 11 of Jones inherently constitutes an O-ring (note Figs. 6 and 7). With regard to claims 70 and 85, Jones additionally discloses that the valve assembly comprises a hollow valve body (constituted by plugs 6 and 10) including an annular shoulder (constituted by the rim of handle 1, note Fig. 2). With regard to claims 71 and 86, Jones further discloses that the valve body comprises one or more apertures 7, 12 (note Fig. 5). With regard to claims 72 and 87, Jones also discloses a sleeve (constituted by ferrule 9) positioned over the hollow valve body (note Figs. 2 and 4-6). With respect to claims 76 and 90, Jones additionally discloses an actuator (constituted by the handle 1) for opening the valve assembly and releasing

Art Unit: 3751

the fluid through the one or more openings (note lines 50-53 in col. 2). With respect to claim 92, Jones further discloses that the handle 1 comprises a substantially uniform cross-section (note Fig. 1).

39. Claims 88 and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones ('620) in view of Zorzo. With respect to claim 88, although Jones fails to disclose a fitting or end connector having a barbed configuration, attention is directed to Zorzo who discloses another mop having a connector 31 (note Figs. 21-23) that is provided with a barbed appendage 32 to enable attachment of the connector 31 to a tube that dispenses the fluid adjacent the floor (note Figs. 3 and 4). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to connect the reservoir of Jones to a tube via a barbed fitting or connector in view of the teachings of Zorzo in order to dispense the fluid in a position closer to the floor to better control the distribution of the fluid on the floor surface. With respect to claim 89, although Jones fails to disclose a flexible tube is in communication with the opening for releasing fluid, attention is directed to Zorzo who discloses another mop having a reservoir wherein a flexible tube 5 is connected to the outlet of the reservoir (note Figs. 3 and 4). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to connect the outlet of the reservoir of Jones to a flexible tube in view of the teachings of Zorzo in order to dispense the fluid in a position closer to the floor to better control the distribution of the fluid on the floor surface.

40. Claim 91 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones ('620) in view of Brooks. Although Jones fails to disclose an actuator for causing the mop head to compress or squeeze the cleaning member, attention is directed to Brooks who discloses another mop having a portion of the handle 24 adapted to hold a fluid in which an actuator (constituted by ears 178) is used for causing the mop head to compress or squeeze the cleaning member in order to permit fluid passage therethrough in clearing the mop of moisture or the like (note from line 73 in col. 3 to line 8 in col. 4). It would have been obvious to one of ordinary skill in the mop art, at the time the invention was made, to provide the mop of Jones with an actuator in

Art Unit: 3751

view of the teachings of Brooks in order to compress or squeeze the cleaning member in order to permit fluid passage therethrough in clearing the mop of moisture or the like.

Conclusion

41. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kathleen J. Prunner whose telephone number is 703-306-9044.

42. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Huson can be reached on 703-308-2580. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

43. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kathleen J. Prunner

August 18, 2004



GREGORY L. HUSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700